



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

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www.miamidade.gov/economy

SOPREMA, Inc.
310 Quadral Drive
Wadsworth, OH 44281

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: SOPREMA Waterproofing Systems

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 14-0715.02 and consists of pages 1 through 74.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 16-0229.05
Expiration Date: 09/18/18
Approval Date: 07/14/16
Page 1 of 74

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Waterproofing Systems
Material: SBS
Deck Type: Concrete, Steel, Lightweight Concrete
Maximum Design Pressure: -572.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|------------------------|---------------------|---------------------------|---|
| Colvent TG | 39" x 49' (1.5 sq.) | ASTM D6163 | Fiberglass reinforced, modified bitumen membrane with 1" wide factory applied heat weldable strips on back side. |
| Colvent 180 TG | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced, modified bitumen membrane with 1" wide factory applied heat weldable strips on back side. |
| Colvent Flam TG | 39" x 49' (1½ sq.) | ASTM D6163 | Fiberglass reinforced, modified bitumen membrane with a burn-off film underside and a plastic film surface. |
| Colvent Flam 180 TG | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a burn-off film underside and a plastic film surface. Applied by heat welding. |
| Colvent SA | 39" x 49' (1.5 sq.) | ASTM D6163 | Fiberglass reinforced, modified bitumen membrane with 1" wide factory applied self-adhering strips on back side |
| Elastophene Sanded | 39" x 49' (1½ sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Colphene Sanded | 39" x 49' (1½ sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene Sanded 3.0 | 39" x 33' (1sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripped. |
| Elastophene PS | 39" x 49' (1½ sq.) | ASTM D6163 | Glass reinforced modified bitumen membrane with a plastic burn-off film for heat weld bonding to the top side. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene PS 3.0 | 39" x 49' (1½ sq.) | ASTM D6163 | Glass reinforced modified bitumen membrane with a plastic burn-off film for heat weld bonding to the top side. Applied in hot asphalt, cold adhesive or ribbon stripping. |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|--------------------------|--------------------|---------------------------|--|
| Elastophene SP 2.2 | 39" x 49' (1½ sq.) | ASTM D6163 | Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Colphene SP 2.2 | 39" x 49' (1½ sq.) | ASTM D6163 | Glass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Elastophene SP 3.0 | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding. |
| Colphene SP 3.0 | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding. |
| Elastophene Flam | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane covered on both sides with a plastic burn-off film. Applied by heat welding. |
| Elastophene Flam 2.2 | 39" x 49' (1½ sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane covered on both sides with a plastic burn-off film. Applied by heat welding. |
| Sopralene 180 Sanded 2.2 | 39" x 49' (1½ sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene 180 Sanded | 39" x 49' (1½ sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Colphene 180 Sanded | 39" x 49' (1½ sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Sopralene 180 PS | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the top and sanded on the bottom. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene 180 PS | 39" x 48' (1½ sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and a plastic burn-off film on the top. Applied in hot asphalt, cold adhesive or ribbon stripping. |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|---------------------------|--|---------------------------|--|
| Sopralene 180 PS 2.2 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the top and sanded on the bottom. |
| Colphene 180 PS | 39" x 48' (1½ sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and a plastic burn-off film on the top. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene LS FR GR | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene GR | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene FR GR | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants, sanded on the bottom and mineral granules on the top. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Elastophene Flam LS FR GR | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding. |
| Elastophene Flam GR | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants, a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding. |
| Elastophene Flam FR GR | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding. |
| Elastophene Flam FR+ GR | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding. |
| Sopralene 180 Sanded | 39" x 33' (1 sq.) 39" x 26' (¾ sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Sopralene 250 Sanded | 39" x 33' (1 sq.) 39" x 26' (¾ sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|----------------------|-------------------|---------------------------|--|
| Sopralene 180 SP 3.5 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Colphene 180 SP 3.5 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene 180 SP 3.0 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding. |
| Sopralene 250 SP | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and sanded on the top. Applied by heat welding. |
| Soprafix | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides. |
| Soprafix Base 622 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane sanded on both sides. |
| Soprafix Cap FR-651 | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants and a plastic burn-off film on the bottom and mineral granules on the top. Applied in cold adhesive or by heat welding. |
| Sopralene Flam 180 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with a plastic burn-off film, used as a base/ply. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Colphene Flam 180 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with a plastic burn-off film, used as a base/ply. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene Flam 250 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced SBS modified bitumen membrane, both sides covered with a plastic burn-off film. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|--------------------------|-------------------|---------------------------|--|
| Sopralene 180 FR GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film). |
| Colphene 180 FR GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants and a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene 250 FR GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film). |
| Colphene 250 FR GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants and a sanded bottom and a mineral granules top. Applied in hot asphalt, cold applied adhesive or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene Flam 180 GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Colphene Flam 180 GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene Flam 180 FR GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Colphene Flam 180 FR GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants and a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|------------------------------|-------------------|---------------------------|--|
| Sopralene Flam 250 FR GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Colphene Flam 250 FR GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants and a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene Flam 180 FR+ GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Sopralene Flam 250 FR+ GR | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with fire retardants a plastic burn-off film on the bottom and mineral granules on the top. Applied by heat welding or ribbon stripping (after removal of plastic burn-off film). |
| Soprastar Flam | 39" x 33' (1 sq.) | ASTM D6162 | Polyester reinforced SBS modified bitumen membrane with a plastic burn-off film on the bottom side and a reflective white top surface. Applied by heat welding. |
| Soprastar Stick | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced SBS modified bitumen membrane with a release film covered self-adhering bottom side and a reflective white top surface. |
| Sopralene Stick | 39" x 33' (1 sq.) | ASTM D6164 | Self-adhered, polyester reinforced membrane with a release film on the bottom and a sanded top. |
| Colphene Stick | 39" x 33' (1 sq.) | ASTM D6164 | Self-adhered, polyester reinforced membrane with a release film on the bottom and a sanded top. |
| Sopralene Flam Antirock | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with a sanded underside and surfaced with colored granules. |
| Sopralene Flam Stick | 39" x 33' (1 sq.) | ASTM D6164 | Self-adhered, polyester reinforced membrane with a release film on the bottom and a plastic burn-off film on the top. |
| Elastophene Stick FR GR | 39" x 33' (1 sq.) | ASTM D6163 | Self-adhered, fire-rated, granule surfaced, fiberglass reinforced membranes. |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|------------------------------|--------------------------------------|---------------------------|---|
| Sopra G | 39" x 108' (3.5 sq.) | ASTM D4601 | Fiberglass reinforced oxidized asphalt base sheet for bonding or mechanically attaching to substrate. For use as a base/ply sheet only. |
| Modified Sopra G | 39" x 108' (3.5 sq.) | ASTM D4601 | Fiberglass reinforced modified asphalt base sheet for bonding or mechanically attaching to substrate. For use as a base/ply sheet only. |
| Soprabase | 39" x 99' (3 sq.) | ASTM D4601 | Oxidized asphalt, polyester reinforced, sand-surface base sheet. For use as a base/ply sheet only. |
| Soprabase S | 39" x 65' (2 sq.) | ASTM D4601 | SBS modified bitumen, polyester reinforced, sand-surfaced base sheet. For use as a base/ply sheet only. |
| Soprabase TG | 36" x 65' (2 sq.) | ASTM D4601 | SBS modified bitumen, polyester reinforced, sand-surfaced base sheet. For use as a base/ply sheet only. |
| Elastophene HS | 39" x 66' (2 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane with fire retardants and sanded on both sides. Applied in hot asphalt, cold adhesive or ribbon stripping. |
| Sopra IV | 36" x 180' (5 sq.) | ASTM D2178 | Type IV, fiberglass reinforced, smooth surfaced ply sheet used in multi-ply systems and complies with ASTM and UL Standards. Applied in hot asphalt or cold adhesive. |
| Sopra VI | 36" x 180' (5 sq.) | ASTM D2178 | Type IV, fiberglass reinforced, smooth surfaced ply sheet used in multi-ply systems and complies with ASTM and UL Standards. Applied in hot asphalt or cold adhesive. |
| Elastophene HD | 39" x 33' (1 sq.) | ASTM D6163 | Fiberglass reinforced modified bitumen membrane sanded on both sides. Applied in hot asphalt or cold adhesive. |
| Soprastar Sanded | 39" x 33' (1 sq.) | ASTM D6162 | Polyester reinforced SBS modified bitumen membrane with a highly reflective reinforcement film on top and sanded on the bottom. |
| Sopralene Flam 180 GR 3.5 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with colored granules on top and film on the bottom. |
| Sopralene Flam 180 FR GR 3.5 | 39" x 33' (1 sq.) | ASTM D6164 | Non-woven polyester reinforced modified bitumen membrane with colored granules on top and film on the bottom. |
| Elastocol 500 | various | ASTM D41 | Asphalt primer. |
| Elastocol Stick | various | Proprietary | Polymer based primer. |
| ALSAN Flashing™ | 1.25 gallon pail or 3.75 gallon pail | Proprietary | One part polyurethane/bitumen resin, moisture cure compound for use as a flashing component. |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|--|--|---------------------------------------|---|
| Soprawalk | 39" x 26' (3/4 sq.) | Proprietary | Non-woven polyester reinforced modified bitumen membrane with a sanded bottom and mineral granules on the top. Applied by hot asphalt, cold adhesive or ribbon stripping. |
| Sopradrain Eco-Vent WR | | Proprietary | Polypropylene roof drain. |
| Sopradrain Eco-2 WR | | Proprietary | Polypropylene roof drain. |
| Sopramastic SP-1 | 5 gallon pail, 55 gallon | ASTM C920, Type S, Grade NS, Class 50 | A solvent free sealant. |
| High Velocity® Membrane Adhesive II (HVMA-II) | 1500 ml cartridges | Proprietary | Two part elastomeric urethane adhesive. |
| Duotack | 5 gallon pail, 55 gallon | Proprietary | Two part elastomeric urethane foam adhesive. |
| FM Adhesive | 5 gallon pail, 55 gallon drum or 350 gallon tote | Proprietary | Elastomeric bitumen based cold adhesive. |
| FM Adhesive (VOC) | 5 gallon pail, 55 gallon drum or 350 gallon tote | Proprietary | Elastomeric bitumen based cold adhesive. |
| COLPLY Adhesive | 5 gallon pail or 55 gallon drum | Proprietary | Polymer modified cold process membrane adhesive. |
| COLPLY Modified Adhesive | 5 gallon pail, 55 gallon drum or 350 gallon tote | Proprietary | Elastomeric bitumen based cold adhesive. |
| Soprastar Adhesive | 5 gallon pail, 55 gallon drum or 350 gallon tote | Proprietary | Elastomeric bitumen based cold adhesive. |

APPROVED INSULATIONS:**TABLE 2**

| Product Name | Product Description | Manufacturer (With Current NOA) |
|--|--|--|
| STYROFOAM High Load 60 Insulation | Extruded Polystyrene Insulation, Type VII | The Dow Chemical Co. |
| STYROFOAM™ PLAZAMATE™ | Extruded Polystyrene Insulation, Type VII | The Dow Chemical Co. |
| SECUROCK Gypsum-Fiber Roof Board | Gypsum board | USG Corp. |
| Ultra-Max | Polyisocyanurate foam insulation | RMax Operating, LLC |
| Sopra-ISO x, Sopra-ISO r, Sopra-ISO s | Polyisocyanurate foam insulation | SOPREMA, Inc. |
| M-Shield | Polyisocyanurate foam insulation | SOPREMA, Inc. |
| Sopraboard | Mineral fortified asphaltic cored coverboard | SOPREMA, Inc. |
| ACFoam-II | Polyisocyanurate foam insulation | Atlas Roofing Corporation |
| ISO 95+ GL | Polyisocyanurate foam insulation | Firestone Building Products Company, LLC |
| H-Shield | Polyisocyanurate foam insulation | Hunter Panels LLC |
| DensDeck, DensDeck Prime | Water resistant gypsum board | Georgia Pacific Gypsum LLC |

APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|--|--|-----------------------|--|
| 1. | SOPREMA #14 Fasteners | Fasteners for membrane or insulation attachment to wood, steel or concrete decks. | Various | SOPREMA, Inc. |
| 2. | SOPREMA #14 MP Fastener | Insulation fastener for wood, steel and concrete. | Various | SOPREMA, Inc. |
| 3. | SOPREMA #15 HD Fastener | Insulation and membrane fasteners | Various | SOPREMA, Inc. |
| 4. | SOPREMA 2" Seam Plate | Stress plate | 2" diameter | SOPREMA, Inc. |
| 5. | SOPREMA 2.4" Seam Plate | Galvalume steel stress plate | 2.4" Round | SOPREMA, Inc. |
| 6. | SOPREMA 3" Round Insulation Plate | Stress plate | 3" diameter | SOPREMA, Inc. |
| 7. | SOPREMA 1.7 in. Base Sheet Fastener | Base ply fastening systems for lightweight concrete decks | 2.7" head x 1.7" long | SOPREMA, Inc. |
| 8. | CR Base Sheet Fastener (1.2" or 1.7") | Galvanized fastener for base sheet attachment for gypsum and lightweight concrete. | 1.125" thick | OMG, Inc. |
| 9. | OMG Heavy Duty | Insulation fastener for wood, steel and concrete. | Various | OMG, Inc. |
| 10. | OMG 3" Galvalume Steel Plates | Galvalume stress plate. | 3" round | OMG, Inc. |
| 11. | Dekfast Galvalume Steel Hex Plates | Galvalume steel plate | 2 7/8" x 3 1/4" | SFS Intec, Inc. |
| 12. | Dekfast Galvalume Steel 3" Round plates | Galvalume steel plate. | 3" round | SFS Intec, Inc. |
| 13. | Dekfast 14 | Insulation fastener | Various | SFS Intec, Inc. |
| 14. | FM-90 | Base ply fastening systems for lightweight concrete decks | 2.7" head x 1.7" long | Altenloh, Brinck & Co. U.S., Inc. |
| 15. | Trufast 3" Metal Insulation Plates | Galvalume steel plate | 3" round | Altenloh, Brinck & Co. U.S., Inc. |
| 16. | Trufast #14 Stainless Steel HD Fasteners | Insulation fastener for wood, steel and concrete. | Various | Altenloh, Brinck & Co. U.S., Inc. |
| 17. | Trufast #14 HD Fastener | Insulation fastener for wood, steel and concrete. | Various | Altenloh, Brinck & Co. U.S., Inc. |
| 18. | Trufast #15 EHD Fastener | Insulation fastener for wood, steel and concrete. | Various | Altenloh, Brinck & Co. U.S., Inc. |
| 19. | Trufast 2" Barbed Metal Seam Plate | Stress plate | 2" diameter | Altenloh, Brinck & Co. U.S., Inc. |
| 20. | Trufast 2.4" Barbed Metal Seam Plate | Galvalume steel stress plate | 2.4" Round | Altenloh, Brinck & Co. U.S., Inc. |

APPROVED SURFACING/COATING OPTIONS:

TABLE 4

| System Number | Manufacturer | Application |
|---------------|---|--|
| 1. | Generic | Gravel applied at 40lbs./sq., adhered with flood coat of asphalt at 60 lbs./sq. |
| 2. | Generic | Slag applied at 300 lbs./sq., adhered with flood coat of asphalt at 60 lbs./sq. |
| 3. | SOPREMA, Inc. | Gravel applied at 400 lbs./sq., adhered with COLPLY Adhesive, FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprarstar Adhesive at 4 gal./sq. |
| 4. | Karnak Corporation | Karnak #97 Fibrated Aluminum Roof Coating applied at an application rate of 1.5 gal./sq. |
| 5. | SOPREMA, Inc. | Cural Aluminizer applied at an application rate of 2 gal./sq. |
| 6. | Thermo Manufacturing Systems, LLC | Super Prep Roof Coating applied in two coats at an application rate of 1.5 gal./sq./coat. |
| 7. | Quest Construction Products LLC dba United Coatings | Roof Mate Coating, applied in one base coat at a rate of 1.5 gal./sq., and one finish coat at a rate of 1.5 gal./sq. |
| 8. | Insulating Coatings Corporation Henry Company | Astec 2000 Finish Coat applied in two base coats at a rate of 0.75 gal./sq./coat and two finish coats at a rate of 0.75 gal./sq./coat. HE280DC White Elastomeric Roof Coating applied in two coats at an application rate of 1 gal./sq./coat. |
| 9. | National Coating Corp. | Acryshield® A500 applied in two coats at an application rate of 1 gal./sq./coat. |
| 10. | Generic | Semi-ceramic coated colored granules. |

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|------------------------|---|---------------------------|--|---------------------|
| Exterior Ceramic Tiles | 12" x 12" x ½" | ASTM C56 & ANSI A137.1 | Ceramic plaza deck walking tiles, 5% water absorption max. | Generic |
| Portland Cement | Various | ANSI A118.1 | A thin-set Portland based mortar formulated for ceramic tile installation. | Generic |
| Concrete Pavers | 12" x 12" x 1" | ASTM C936 | high density concrete pavers | Generic |
| Wausau Lok-Down Paver | 24" x 24" x 2" | ASTM C936 | 8000 psi Min. Compressive strength, 5% water absorption | Wausau Tile, Inc. |
| Lok-Down Tab | Base: 6.5" square plate Top: 5.8" square plate | Proprietary | SBR rubber tab used to support pavers to stand. | Wausau Tile, Inc. |
| Terra Stand Pedestal | 5" round core | Proprietary | Copolymer polypropylene stand. | Wausau Tile, Inc. |

EVIDENCE SUBMITTED:

| <u>Test Agency</u> | <u>Test Name/Report</u> | <u>Test Identifier</u> | <u>Date</u> |
|---------------------------------|-------------------------|------------------------|-------------|
| Factory Mutual Research Corp. | FM 4470 | 1W8A1.AM | 07/15/93 |
| | FM 4470 | 1Z3A6.AM | 04/27/95 |
| | FM 4470 | 2D0A0.AM | 08/15/97 |
| | FM 4470 | 2B8A4. AM | 07/02/97 |
| | FM 4470 | 1D7A4.AM | 11/09/98 |
| | FM 4470 | 3026028 | 05/25/06 |
| | FM 4470 | 3028631 | 08/09/07 |
| | FM 4470 | 3029098 | 10/25/07 |
| | FM 4470 | 3025185 | 05/22/07 |
| | FM 4470 | 3017614 | 02/27/06 |
| | FM 4470 | 3023749 | 09/28/06 |
| | FM 4454 | 3022038 | 04/05/06 |
| | FM 4470 | 3045101 | 11/05/12 |
| | FM 4470 | 3002351 | 02/28/03 |
| | FM 4470 | 797-07582-267 | 08/15/12 |
| | FM 4470 | 797-03385-267 | 11/05/12 |
| | FM 4470 | RR201064 | 05/01/15 |
| | FM 4470 | 3044801 | 02/27/12 |
| | FM 4470 | 3049322 | 01/17/14 |
| | FM 4470 | 3045734 | 04/04/12 |
| | FM 4470 | 3024594 | 05/19/06 |
| Underwriters Laboratories, Inc. | UL 790 | R11436 | 06/18/13 |
| Dynatech Engineering Corp. | TAS 114 | 10.94.27 | 10/27/94 |
| | TAS 114 | 2491-04.95 | 01/04/95 |
| Exterior Research & Design, LLC | TAS 114 | 2003.02.97-1 | 02/15/97 |
| | TAS 114 | 2003-2.04.97-1 | 04/15/97 |
| | TAS 114 | 2002.07.97-1 | 08/15/97 |
| | TAS 114 | 2755.09.02 | 10/19/02 |
| | TAS 114 | 2761.09.03 | 09/02/03 |
| | TAS 114 | 2761.10.03-2 | 10/03/03 |
| | TAS 114 | 2760.12.04-R1 | 12/23/04 |
| | TAS 114 | 2777.09.05-R2 | 04/18/07 |
| Trinity ERD | ASTM D6163 | S6740.11.07 | 11/02/07 |
| | Physical Properties | S10950.04.10 | 04/06/10 |
| | ASTM D4798 & TAS 110 | S11440.06.10 | 06/01/10 |
| | ASTM D6164 | S11440.01.11-R1 | 06/07/12 |
| | ASTM D2178 | S11440.11.10-4 | 11/17/10 |
| | ASTM D4601 | S11440.11.10-3-R2 | 08/26/14 |
| | ASTM D6163 | S11440.12.10-1-R1 | 06/07/12 |
| | ASTM D6162 | S32700.12.10-R2 | 07/07/14 |
| | ASTM D6163 | S35860.09.12-R1 | 03/14/13 |
| | ASTM D2178 | S35860.12.11-1 | 12/12/11 |
| | ASTM D4601 | S35860.12.11-2 | 12/12/11 |
| | ASTM D6163 | S35860.05.12-1-R2 | 03/14/13 |
| | ASTM D6164 | S35860.05.12-2-R2 | 03/14/13 |
| | ASTM D6164 | S35860.05.12-3-R1 | 03/14/13 |

| <u>Test Agency</u> | <u>Test Name/Report</u> | <u>Test Identifier</u> | <u>Date</u> |
|---|-------------------------|------------------------|-------------|
| Trinity ERD | TAS 114 | S35010.10.10-R1 | 08/26/14 |
| | TAS 114 | S47170.08.14-1 | 08/25/14 |
| | TAS 114 | S47300.08.14-1 | 08/19/14 |
| | TAS 114 | S47300.08.14-2 | 08/19/14 |
| | TAS 114 | SC5190.08.14 | 08/19/14 |
| | ASTM D6163 | S43400.08.14-4 | 08/26/14 |
| | ASTM D6163 | S43400.08.14-5 | 08/26/14 |
| | ASTM D6164 | S43400.08.14-6 | 08/26/14 |
| | ASTM D6164 | S43400.08.14-7 | 08/26/14 |
| | ASTM D6164 | S43400.09.14-9 | 09/02/14 |
| | Physical Properties | S45890.09.14 | 09/02/14 |
| | ASTM D6164 | S44110.08.14-5 | 08/29/14 |
| | ASTM D6164 | S35860.05.12-2-R3 | 08/29/14 |
| | ASTM D6506 | S45010.02.14 | 02/07/14 |
| | ASTM D6162 | S32700.12.10-R2 | 07/07/14 |
| | ASTM D6164 | S44220.09.14-7C | 09/02/14 |
| | ASTM D6164 | S44110.01.15-4A-R3 | 05/01/15 |
| | TAS 117 (B) | S32840.06.10-R1 | 12/11/14 |
| IRT of S. Florida, Inc. | TAS 114 | 01-002 | 01/21/01 |
| ITS / Warnock Hersey | ASTM D5147 | | 05/27/93 |
| PRI Construction Materials Technologies, LLC | ASTM D1644/D2196 | SOP-049-02-01 | 05/31/12 |
| | ASTM D4601 | SOP-043-02-01 | 02/27/12 |
| | ASTM D4601 | SOP-042-02-01 | 02/27/12 |
| | ASTM D2178 | SOP-041-02-01 | 02/27/12 |
| | ASTM D2178 | SOP-040-02-01 | 02/27/12 |
| | TAS-138 | SOP-010-02-01.03 | 07/26/11 |
| | ASTM D3019 | SOP-050-02-01 | 03/04/13 |
| | Physical Properties | ADCO-001-02-01 | 06/16/13 |
| Atlantic & Caribbean Roof Consulting | TAS 114 | ACRC# 08-0359 | 06/20/08 |
| Intertek Architectural Testing | Physical Properties | F0856.01-106-18 | 05/13/16 |

APPROVED APPLICATIONS:

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|--------------------------|---|
| Membrane Type: | SBS |
| Deck Type 3I: | Concrete, Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type A(1): | Membrane adhered directly to primed concrete deck. Insulation adhered under surfacing for Terrace/Plaza Decks, Planters or Traffic Areas. |

All General and System Limitations apply.

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| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Primed with ASTM D 41 primer applied to top of composite board or top of cover board in insulation assembly. |
| Base/Ply Sheet: | One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch-applied. |
| Membrane | Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR or Sopralene Flam 250 FR+ GR, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water maybe maintained for a period longer than 24 hours if required. |

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| STYROFOAM High Load 60 Insulation, STYROFOAM™ PLAZAMATE™ Minimum 1.5" thick | N/A | N/A |

Note: All layers of insulation shall be adhered with Duotack adhesive beads spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation as the final membrane substrate.

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| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards and traffic surfacing. All defects observed shall be corrected. |
| Surfacing: | Exterior grade ceramic plaza deck walking tiles (Minimum size of 12" x 12" and minimum ½" thickness) tiles shall be embedded into mud-set Portland Cement applied with a ¼" minimum square notched trowel. Tiles should then be carefully embedded in the mortar bed and tapped in place to insure full solid bearing. Tile shall be installed in accordance with applicable Building Code. |

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| Maximum Design Pressure: | -255 psf. (See General Limitation #9.) |
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Approval Date: 07/14/16
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Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated

Deck Description: Terrace/Plaza Deck, Planter, Traffic

System Type A(2): Concrete Paver Finish over Membrane.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

Primer: Elastocol 500, Elastocol Stick or ASTM D 41 primer applied to deck at a rate of 100-150 ft²/gal.

Base Sheet: One or more plies of Sopralene Flam 180, Colphene Flam 180 or Sopralene Flam 250, torch-applied according to manufacturer's application instruction.

Membrane: Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR, Soprastar Flam torch-applied according to manufacturer's application instruction.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water maybe maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards and traffic surfacing. All defects observed shall be corrected.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|-----------------------------------|-------------------------------------|
| STYROFOAM High Load 60 Insulation, STYROFOAM™ PLAZAMATE™ Minimum 1.5" thick | N/A | N/A |

Note: All layers of insulation shall be adhered with Duotack adhesive beads spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation as the final membrane substrate.

Surfacing: Concrete pavers (24" x 24" x 1.5" thick), 4000 psi minimum shall be embedded into mud-set Portland Cement applied with a ¼" minimum square notched trowel. Pavers should then be carefully embedded in the mortar bed and tapped in place to insure full solid bearing. Tile shall be installed in accordance with applicable Building Code.

Maximum Design Pressure: -255 psf. (See General Limitation #9)

Membrane Type: SBS
Deck Type 3I: Concrete, Insulated
Deck Description: Terrace/Plaza Deck, Planter, Traffic
System Type A(3): Membrane adhered directly to primed concrete deck. Insulation adhered under surfacing for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

Primer: Concrete shall be primed with ASTM D 41 primer applied to top of composite board or top of cover board in insulation assembly.

Base/Ply Sheet: One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch-applied.

Membrane Elastophene Flam LS FR GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR or Sopralene Flam 250 FR+ GR, Soprapstar Flam torch-applied.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water maybe maintained for a period longer than 24 hours if required.

One or more layers of any of the following insulations.

| Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft ² |
|--|-----------------------------------|-------------------------------------|
| STYROFOAM High Load 60 Insulation, STYROFOAM™ PLAZAMATE™ Minimum 1.5" thick | N/A | N/A |

Note: All layers of insulation shall be adhered with Duotack adhesive beads spaced 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation as the final membrane substrate.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards and traffic surfacing. All defects observed shall be corrected.

Protection Board / Drainage Layer: Install drainage board over top ply membrane
(Optional)

Surfacing: Structural Concrete Slab, minimum 2500 psi, in compliance with applicable Building Code.

Maximum Design Pressure: N/A (Topping concrete slab shall comply with applicable Building Code requirement.)



Membrane: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Structural Concrete or Min. 18-22 ga., A1008 SS Grade 33, Type B steel deck fastened to ¼” thick steel structural supports spaced a maximum of 6’ o.c. with Traxx/5 fasteners and ¾” diameter steel washers spaced a maximum 6” o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced 24 in. o.c.

System Type D(1): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete or Mearlcrete Lightweight Insulating Concrete | | |
| Minimum 2.0” thick, Minimum 300 psi. | N/A | N/A |

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented. When any insulation is installed directly over LWC it must be separated by a slip sheet or approved membrane.

| Middle Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x | | |
| Minimum 1.5” thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Sopraboard | | |
| Minimum 1/8” thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 1/4” thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1” thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 611, Soprafix Base 610, Soprafix Base 630, Soprafix, Soprafix Base 622, Soprafix [S], Soprafix Base 612, Soprafix [F], Soprafix Base 613, Soprafix [X] or Soprafix Base 614 fastened to the deck as described below:

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| Fastening #1: | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. in a 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -67.5 psf. See General Limitation #7.)</i> |
| Fastening #2: | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2.4" Scoop Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. in a 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -75 psf. See General Limitation #7.)</i> |
| Ply Sheet: (Optional) | One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied. |
| Membrane: | Elastophene Flam LS FR GR, Soprafix Cap FR-651, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 Ultra FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 Ultra FR GR, Sopralene Flam 250 FR+ GR, Soprastar Flam, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | See Fastening options above. |

Membrane: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Structural Concrete or Min. 18-22 ga., A1008 SS Grade 33, Type B steel deck fastened to ¼” thick steel structural supports spaced a maximum of 6’ o.c. with Traxx/5 fasteners and ¾” diameter steel washers spaced a maximum 6” o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced 24 in. o.c.

System Type D(2): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete or Mearlcrete Lightweight Insulating Concrete | | |
| Minimum 2.0” thick, Minimum 300 psi. | N/A | N/A |

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented. When any insulation is installed directly over LWC it must be separated by a slip sheet or approved membrane.

| Middle Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x | | |
| Minimum 1.5” thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Sopraboard | | |
| Minimum ⅛” thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum ¼” thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1” thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 621, Soprafix, Soprafix Base 622, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 Sanded or Sopralene 250 SP fastened to the deck as described below:

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| Fastening #1: | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2” Barbed Metal Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2” Seam Plates with row spacing at a maximum 35.5” o.c. The fasteners are spaced 12” o.c. and centered inside the 4” wide, torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -67.5 psf. See General Limitation #7.)</i> |
| Fastening #2: | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2.4” Scoop Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2.4” Seam Plates with row spacing at a maximum 35.5” o.c. The fasteners are spaced 12” o.c. and centered inside the 4” wide, torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -75 psf. See General Limitation #7.)</i> |
| Membrane: | Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 180 Ultra FR GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 Ultra FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded or Soprastar Sanded fully adhered to the base sheet with COLPLY EF Adhesive, COLPLY Adhesive, COLPLY Modified Adhesive, FM Adhesive, FM Adhesive (VOC) or Soprastar Adhesive at 1.5 – 2.0 gallons/square. The 3” wide side laps are adhered with the same adhesive or torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | See Fastening options above. |

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| Membrane: | SBS |
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Structural concrete or Min. 22 ga., A1008 or A653 Grade 80, Type B steel deck fastened to ¼” thick steel structural supports spaced a maximum of 6’ o.c. with Traxx/5 fasteners and ¾” diameter steel washers spaced a maximum 6” o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced 12 in. o.c. |
| System Type D(3): | Membrane fastened over preliminarily secured insulation. |

All General and System Limitations apply.

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| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
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One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete or Mearlcrete Lightweight Insulating Concrete | | |
| Minimum 2.0” thick, Minimum 300 psi. | N/A | N/A |

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented. When any insulation is installed directly over LWC it must be separated by a slip sheet or approved membrane.

| Middle Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x | | |
| Minimum 1.5” thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Sopraboard | | |
| Minimum 0.125” thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 0.25” thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1” thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

| | |
|--------------------|---|
| Base Sheet: | One layer of Soprafix Base 611, Soprafix Base 610, Soprafix Base 630, Soprafix, Soprafix Base 622, Soprafix [S], Soprafix Base 612, Soprafix [F], Soprafix Base 613, Soprafix [X] or Soprafix Base 614 fastened to the deck as described below: |
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| Fastening #1: | Attach base sheet using Trufast #14 HD Fasteners with Trufast 2" Barbed Metal Seam Plates or SOPREMA #14 MP Fasteners with SOPREMA 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -67.5 psf. See General Limitation #7.)</i> |
| Fastening #2: | Attach base sheet using Trufast #14 HD Fasteners with Trufast 2.4" Scoop Seam Plates or SOPREMA #14 MP Fasteners with SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -75 psf. See General Limitation #7.)</i> |
| Fastening #3: | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. in a 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -120 psf. See General Limitation #7.)</i> |
| Fastening #4: | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2.4" Scoop Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. in a 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -142.5 psf. See General Limitation #7.)</i> |
| Ply Sheet: (Optional) | One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied. |
| Membrane: | Elastophene Flam LS FR GR, Soprafix Cap FR-651, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 Ultra FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 Ultra FR GR, Sopralene Flam 250 FR+ GR, Soprastar Flam, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | See Fastening options above. |

Membrane: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Structural concrete or min. 22 ga., Type B, Grade 80 ksi steel deck fastened to ¼” thick steel structural supports spaced a maximum of 6’ o.c. with Traxx/5 fasteners and ¾” diameter steel washers spaced a maximum 6” o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced 12 in. o.c.

System Type D(4): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete or Mearlcrete Lightweight Insulating Concrete | | |
| Minimum 2.0” thick, Minimum 300 psi. | N/A | N/A |

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented. When any insulation is installed directly over LWC it must be separated by a slip sheet or approved membrane.

| Middle Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x | | |
| Minimum 1.5” thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Sopraboard | | |
| Minimum 1/8” thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 1/4” thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base/anchor sheet, at a minimum application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 621, Soprafix, Soprafix Base 622, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 Sanded or Sopralene 250 SP fastened to the deck as described below:

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| Fastening #1: | Attach base sheet using Trufast #14 HD Fasteners with Trufast 2" Barbed Metal Seam Plates or SOPREMA #14 MP Fasteners with SOPREMA 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -67.5 psf. See General Limitation #7.)</i> |
| Fastening #2: | Attach base sheet using Trufast #14 HD Fasteners with Trufast 2.4" Scoop Seam Plates or SOPREMA #14 MP Fasteners with SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -75 psf. See General Limitation #7.)</i> |
| Fastening #3 | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2.4" Scoop Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 12" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -97.5 psf. See General Limitation #7.)</i> |
| Fastening #4: | Attach base sheet using Trufast #14 HD or Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or Trufast 2.4" Scoop Seam Plates or SOPREMA #14 MP or SOPREMA #15 HD Fasteners with SOPREMA 2" Seam Plates or SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -120 psf. See General Limitation #7.)</i> |
| Membrane: | Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 180 Ultra FR GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 Ultra FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded or Soprapstar Sanded fully adhered to the base sheet with COLPLY EF Adhesive, COLPLY Adhesive, COLPLY Modified Adhesive, FM Adhesive, FM Adhesive (VOC) or Soprapstar Adhesive at 1.5 – 2.0 gallons/square. The 3" wide side laps are adhered with the same adhesive or torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | See Fastening options above. |

Membrane: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Structural concrete or min. 22 ga., A1008 or A653 Grade 80 ksi steel deck fastened to ¼” thick steel structural supports spaced a maximum of 6’ o.c. with Traxx/5 fasteners spaced a maximum 6” o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced 12 in. o.c.

System Type D(5): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete or Mearlcrete Lightweight Insulating Concrete | | |
| Minimum 2.0” thick, Minimum 300 psi. | N/A | N/A |

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented. When any insulation is installed directly over LWC it must be separated by a slip sheet or approved membrane.

| Middle Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x | | |
| Minimum 1.5” thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Sopraboard | | |
| Minimum 1/8” thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 1/4” thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1” thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix [X] or Soprafix Base 614 fastened to the deck as described below:

Fastening#1: Attach base sheet using Trufast #15 EHD Fasteners and SOPREMA #15 HD Fasteners with Trufast 2.4” Scoop Seam Plates and SOPREMA 2.4” Seam Plates with row spacing at a maximum 35.5” o.c. The fasteners are spaced 12” o.c. and centered inside the 4” wide torch-applied base sheet side laps.
(Meets Maximum Design Pressure of -97.5 psf. See General Limitation #7.)

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| Fastening #2: | Attach base sheet using Trufast #15 EHD Fasteners and SOPREMA #15 HD Fasteners with Trufast 2.4" Scoop Seam Plates and SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -172.5 psf. See General Limitation #7.)</i> |
| Ply Sheet: (Optional) | One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied. |
| Membrane: | Elastophene Flam LS FR GR, Soprafix Cap FR-651, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 Ultra FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 Ultra FR GR, Sopralene Flam 250 FR+ GR, Soprastar Flam, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | See Fastening options above. |

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| Membrane: | SBS |
| Deck Type 7I: | Recover, Insulated |
| Deck Description: | Structural concrete or min. 22 ga., A1008 SS Grade 33, Type B steel deck fastened to ¼” thick steel structural supports spaced a maximum of 6’ o.c. with Traxx/5 fasteners and ¾” diameter steel washers spaced a maximum 6” o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced 12 in. o.c. |
| System Type D(6): | Membrane fastened over preliminarily secured insulation. |

All General and System Limitations apply.

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| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
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One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete or Mearlcrete Lightweight Insulating Concrete | | |
| Minimum 2.0” thick, Minimum 300 psi. | N/A | N/A |

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented. When any insulation is installed directly over LWC it must be separated by a slip sheet or approved membrane.

| Middle Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x | | |
| Minimum 1.5” thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Sopraboard | | |
| Minimum 1/8” thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 1/4” thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1” thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

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| Base Sheet: | One layer of Soprafix Base 611, Soprafix Base 610, Soprafix Base 630, Soprafix, Soprafix Base 622, Soprafix [S], Soprafix Base 612, Soprafix [F], Soprafix Base 613, Soprafix [X] or Soprafix Base 614 fastened to the deck as described below: |
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| Fastening: | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or Trufast 2.4" Scoop Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2" Seam Plates or SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. in a 4" wide torch-applied base sheet side laps. |
| Ply Sheet: (Optional) | One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied. |
| Membrane: | Elastophene Flam LS FR GR, Soprafix Cap FR-651, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 Ultra FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 Ultra FR GR, Sopralene Flam 250 FR+ GR, SopraStar Flam, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -112.5 psf. (See General Limitation #7.) |

Membrane: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Structural concrete or Min. 18 ga., Type B, Grade 33 steel deck fastened to ¼” thick steel structural supports spaced a maximum of 6’ o.c. with Traxx/5 fasteners and ¾” diameter steel washers spaced a maximum 6” o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced 12 in. o.c.

System Type D(7): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete or Mearlcrete Lightweight Insulating Concrete | | |
| Minimum 2.0” thick, Minimum 300 psi. | N/A | N/A |

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented. When any insulation is installed directly over LWC it must be separated by a slip sheet or approved membrane.

| Middle Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x | | |
| Minimum 1.5” thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Sopraboard | | |
| Minimum 1/8” thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 1/4” thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1” thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 621, Soprafix, Soprafix Base 622, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 Sanded or Sopralene 250 SP fastened to the deck as described below:

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| Fastening: | Attach base sheet using Trufast #15 EHD Fasteners with Trufast 2" Barbed Metal Seam Plates or Trufast 2.4" Scoop Seam Plates or SOPREMA #15 HD Fasteners with SOPREMA 2" Seam Plates or SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. and centered inside the 4" wide torch-applied base sheet side laps. |
| Membrane: | Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 180 FR+ GR, Sopralene 180 Ultra FR GR, Sopralene 250 FR GR, Colphene 250 FR GR, Sopralene 250 Ultra FR GR, Sopralene 250 FR+ GR, Sopralast 50 TV Alu Sanded or Soprastar Sanded fully adhered to the base sheet with COLPLY EF Adhesive, COLPLY Adhesive, COLPLY Modified Adhesive, FM Adhesive, FM Adhesive (VOC) or Soprastar Adhesive at 1.5 – 2.0 gallons/square. The 3" wide side laps are adhered with the same adhesive or torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -112.5 psf. (See General Limitation #7.) |

Membrane: SBS

Deck Type 7I: Recover, Insulated

Deck Description: Structural concrete or min. 22 ga., A1008 or A653 Grade 80 ksi steel deck fastened to ¼” thick steel structural supports spaced a maximum of 6’ o.c. with Traxx/5 fasteners spaced a maximum 6” o.c. at the supports. Side laps are fastened with Traxx/1 fasteners spaced 12 in. o.c.

System Type D(8): Membrane fastened over preliminarily secured insulation.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Celcore MF Cellular Concrete, Siplast Lightweight Insulating Concrete, Elastizell Lightweight Insulating Concrete, Concrecel Lightweight Insulating Concrete or Mearlcrete Lightweight Insulating Concrete | | |
| Minimum 2.0” thick, Minimum 300 psi. | N/A | N/A |

Note: Load capacity of the structural substrate must be verified for the additional load of the LWC. The LWC must be properly vented. When any insulation is installed directly over LWC it must be separated by a slip sheet or approved membrane.

| Middle Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam-II, Sopra-ISO s, ISO 95+ GL, Ultra-Max, H-Shield, M-Shield, Sopra-ISO r, Sopra-ISO x | | |
| Minimum 1.5” thick | N/A | N/A |

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Sopraboard | | |
| Minimum 0.125” thick | N/A | N/A |
| DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board | | |
| Minimum 0.25” thick | N/A | N/A |

Note: Top layer shall have preliminary attachment, prior to the installation of the base sheet. Insulation shall be limited to maximum 1” thickness. All layers of insulation and base sheet shall be simultaneously fastened. See base/anchor sheet below for fasteners and density.

Base Sheet: One layer of Soprafix Base 611, Soprafix Base 610, Soprafix Base 630, Soprafix, Soprafix Base 622, Soprafix [S], Soprafix Base 612, Soprafix [F], Soprafix Base 613, Soprafix [X] or Soprafix Base 614 fastened to the deck as described below:

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| Fastening #1: | Attach base sheet using Trufast #14 HD Fasteners with Trufast 2" Barbed Metal Seam Plates or SOPREMA #14 MP Fasteners with SOPREMA 2" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -120 psf. See General Limitation #7.)</i> |
| Fastening #2: | Attach base sheet using Trufast #14 HD Fasteners with Trufast 2.4" Scoop Seam Plates or SOPREMA #14 MP Fasteners with SOPREMA 2.4" Seam Plates with row spacing at a maximum 35.5" o.c. The fasteners are spaced 6" o.c. and centered inside the 4" wide torch-applied base sheet side laps. <i>(Meets Maximum Design Pressure of -135 psf. See General Limitation #7.)</i> |
| Ply Sheet: (Optional) | One or more plies of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied. |
| Membrane: | Elastophene Flam LS FR GR, Soprafix Cap FR-651, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 180 Ultra FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 Ultra FR GR, Sopralene Flam 250 FR+ GR, Soprastar Flam, Sopralast 50 TV Alu, Sopralene Flam Antirock, torch-applied. The 3" wide side laps of the cap sheets are torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | See Fastening options above. |

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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Decks, Non-Insulated |
| Deck Description: | Mearlcrete Lightweight Insulating Concrete, min. 200 psi. |
| System Type E(1): | Base sheet mechanically attached directly to substrate. Membranes adhered to base sheet for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | Min. 22 ga. Grade 33, Type BV Steel Deck attached 6" o.c. with 3/8 in. welding washers to steel supports spaced max 5 ft. o.c. Deck side laps are attached with 2 #10 steel self-tapping screws evenly spaced between purlins or min 2,500 psi structural concrete. |
| LWIC: | Mearlcrete Lightweight Insulating Concrete, min. 200 psi, wet cast density 40 pcf, with minimum 1.5" thick EPS board embedded in 1/8" slurry. Followed by, wet cast density 40 pcf, minimum 2" thick top coat. |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Base Sheet: | Sopra G mechanically with OMG CR Base Ply Fasteners (1.7) spaced 7-inch o.c. at the 4-inch laps and 7-inch o.c. in two equally spaced, staggered center rows. |
| Ply Sheet: | One ply of Elastophene Sanded, Colphene Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 PS*, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Sopra IV or Sopra VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane. *Requires torch-applied cap membrane. |
| Membrane: | Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Elastophene Flam LS FR GR, SopraStar Flam, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR or Colphene 250 FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced ply membrane. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -52.5 psf. (See General Limitation #7.) |

Membrane Type: SBS

Deck Type 4: Lightweight Decks, Non-Insulated

Deck Description: Concrecel Concrete, min. 400 psi.

System Type E(2): Base sheet mechanically attached directly to substrate. Membranes adhered to base sheet for Terrace/Plaza Decks, Planters or Traffic Areas

All General and System Limitations apply.

Structural Deck: Min. 22 ga. Grade SS80, Type B Steel Deck attached 6" o.c. with 5/8 in. puddle welds and washers to steel supports spaced max 5 ft o.c. Deck side laps are attached with Traxx/1 screws spaced 12" o.c. or min 2,500 psi structural concrete.

LWIC Deck: Concrecel Bonding Agent applied to deck at a rate of 600 ft²/gal; Concrecel Concrete, 46.4 pcf wet cast density, min. 400 psi, concrete pour consisting of a 1/4" slurry coat, minimum 1" thick Holey Board and a minimum 2-1/4" thick top coat, 43 pcf wet cast density. Followed by Concrecel Curing Compound spray-applied at a rate of 600 ft²/gal.

Base Sheet: Sopra G or Modified Sopra G mechanically attached with OMG CR Base Ply Fasteners (1.7") spaced 7-inch o.c. at the 3-inch laps and 7-inch o.c. in two equally spaced, staggered center rows.

Ply Sheet: One ply of Elastophene Flam*, Elastophene Flam 2.2*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Soprafix, Soprafix Base 622, Sopralene Flam 250*, Sopralene 250 SP, heat welded.

Or

One ply of Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene HS, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene 180 PS*, Colphene 180 PS*, Sopralene 180 PS 2.2*, Sopralene 180 Sanded, Sopralene 180 PS*, Sopralene 250 Sanded, or one to three plies of Sopra IV or Sopra VI ply sheet, adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive, or SopraStar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced base membrane.

*Requires heat welded cap membrane.

Membrane: One layer of Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, SopraStar Flam, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, heat welded.

Or

Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, SopraStar Sanded, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR or Colphene 250 FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or SopraStar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced ply membrane.

Integrity Test:

Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.

Inspection:

Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

**Surfacing:
(Optional)**

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

**Maximum Design
Pressure:**

-52.5 psf. (See General Limitation #7.)



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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Decks, Non-Insulated |
| Deck Description: | Concrecel Concrete, min. 400 psi. |
| System Type E(3): | Base sheet mechanically attached directly to substrate. Membranes adhered to base sheet for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | Min. 22 ga. Grade SS80, Type B Steel Deck attached 6" o.c. with 5/8 in. puddle welds and washers to steel supports spaced max 5 ft o.c. Deck side laps are attached with Traxx/1 screws spaced 12" o.c. or min 2,500 psi structural concrete. |
| LWIC Deck: | Concrecel Bonding Agent applied to deck at a rate of 600 ft ² /gal; Concrecel Concrete, 46.4 pcf wet cast density, min. 400 psi, concrete pour consisting of a 1/4" slurry coat, minimum 1" thick Holey Board and a minimum 2-1/4" thick top coat, 43 pcf wet cast density. Followed by Concrecel Curing Compound spay-applied at a rate of 600 ft ² /gal. |
| Base Sheet: | Sopralene 180 Sanded or Colphene 180 Sanded mechanically attached with OMG CR Base Sheet Fastener (1.2" or 1.7") spaced 7-inch o.c. at the 4-inch laps and 7-inch o.c. in two equally spaced, staggered center rows. |
| Ply Sheet: | One ply of Elastophene Sanded, Colphene Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Colphene 180 PS, Sopralene 180 PS 2.2*, Sopralene 180 PS*, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Sopra IV or Sopra VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane. *Requires torch-applied cap membrane. |
| Membrane: | Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Elastophene Flam LS FR GR, Soprapstar Flam, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR+ GR, torch-applied. Or Elastophene FR GR, Elastophene LS FR GR, Elastophene GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR or Colphene 250 FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced ply membrane. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -60 psf. (See General Limitation #7.) |



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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Decks, Non-Insulated |
| Deck Description: | Celcore MF Cellular Concrete, min. 300 psi, |
| System Type E(4): | Base sheet mechanically attached directly to substrate. Membranes adhered to base sheet for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | Structural concrete or 18-22 ga. Type B steel deck installed and welded to minimum 0.25 in. thick steel structural supports spaced maximum 5' o.c. using 3/8" diameter weld washers 6" o.c. at each bearing. The deck side laps are fastened at 30" o.c. using Traxx/1 fasteners. |
| LWIC Deck: | Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture with a minimum wet cast density of 38 lbs./ft ³ , min. 300 psi, filling the corrugation with a minimum depth of 1/8". The Celcore HS admixture was added to the mixture during the mixing process at a rate of 3.4 fl. oz. per 100 lbs. of cement. Minimum 1" thick Holey Boards are then immediately placed in a brick-like pattern into the wet concrete and allowed to set overnight. The following day, a minimum 2" thick topping layer of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture is placed atop the EPS at a wet cast density of 38 lbs./ft ³ , min. 300 psi. After an overnight set, Celcore PVA Curing Compound is spray applied to the lightweight concrete at a rate of 0.33 gal/sq. and allowed to dry for 48 hours. |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Base Sheet: | Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene Sanded, Colphene Sanded, Sopra G, Modified Sopra G, Sopra IV, Sopra VI, Soprafix, Soprafix Base 622, Soprabase*, Soprabase S* mechanically attached with FM-90 or SOPREMA 1.7 in. Base Sheet Fastener spaced 9" o.c. at the 4" laps and 12" o.c. in two equally spaced, staggered rows. *Requires asphalt applied or cold applied ply sheets. |
| Ply Sheet: (Optional) | Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250* or Sopralene 250 SP, torch-applied with minimum 3" wide lap. Or Elastophene Sanded, Colphene Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Colphene 180 PS, Sopralene 180 PS 2.2*, Sopralene 180 PS*, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Sopra IV or Sopra VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane. *Requires torch-applied cap membrane. |

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| Membrane: | <p>Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Soprastar Flam, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Soprafix Cap FR-651, torch-applied.</p> <p>Or</p> <p>Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Soprastar Sanded, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR or Colphene 250 FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced ply membrane.</p> |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | <p>-60 psf. (torch applied membranes) (See General Limitation #7.)</p> <p>-52.5 psf. (all other membrane applications) (See General Limitation #7.)</p> |

Membrane Type: SBS

Deck Type 4: Lightweight Decks, Non-Insulated

Deck Description: Celcore MF Cellular Concrete, min. 300 psi.

System Type E(5): Base sheet mechanically attached to the primed substrate. Membranes adhered to base sheet for Terrace/Plaza Decks, Planters or Traffic Areas

All General and System Limitations apply.

Structural Deck: 18-22 ga. Grade 33, galvanized steel deck installed and welded to minimum 0.25 in. thick steel structural supports spaced maximum 6' o.c. using 3/8" diameter weld washers 6" o.c. at each bearing. The deck side laps are fastened at 24" o.c. (three evenly spaced fasteners between supports) using Tek's 1 or Traxx/1 fasteners between supports. Or structural concrete deck.

Thermal Barrier: Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board mechanically fastened with OMG Heavy Duty fasteners, OMG 3" Galvalume Steel Plates, Dekfast Galvalume Steel Hex plates, Dekfast Galvalume Steel 3" Round plates, Dekfast 14 fasteners, Trufast 3" Metal Insulation Plates and Trufast #14 Stainless Steel HD Fasteners or SOPREMA 3" Round Insulation Plate and SOPREMA #14 Fasteners at a rate of 1 per 1.6 ft².

Vapor Barrier: One layer of Elastophene SP 2.2 or Colphene SP 2.2, torch-applied with minimum 3" wide lap or one layer of Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene Sanded, Colphene Sanded, Sopralene 180 Sanded or Sopralene 250 Sanded, hot asphalt applied.

LWIC Deck: Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture with a min. 300 psi, min. wet cast density of 43.5 lbs./ft³, filling the corrugation with a minimum depth of 1/8". The Celcore HS admixture was added to the mixture during the mixing process at a rate of 3.4 fl. oz. per 100 lbs. of cement. Minimum 1" thick Insulfoam EPS Holey Boards are then immediately placed in a brick-like pattern into the wet concrete and allowed to set overnight. The following day, a minimum 2" thick topping layer of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture is placed atop the EPS at a wet cast density of 45 lbs./ft³, min. 300 psi.

Base Sheet: Sopra G, Modified Sopra G or Sopra VI mechanically attached with FM-90, SOPREMA 1.7 in. Base Sheet Fastener or OMG CR Base Ply Fasteners (1.7") spaced 7-inch o.c. at the 3-inch laps and 7-inch o.c. in two equally spaced, staggered center rows.

**Ply Sheet:
(Optional)** Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene Flam 250, torch-applied.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Sopraplast Flam, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Soprafix Cap FR-651, torch-applied.

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| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -60 psf. (See General Limitation #7.) |

Membrane Type: SBS

Deck Type 4: Lightweight Decks, Non-Insulated

Deck Description: Celcore MF Cellular Concrete, min. 350 psi

System Type E(6): Base sheet mechanically attached directly to substrate. Membranes adhered to base sheet for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Structural Deck: 18-22 ga. Grade 33, galvanized steel deck installed and welded to minimum 0.25 in. thick steel structural supports spaced maximum 6' o.c. using 3/8" diameter weld washers 6" o.c. at each bearing. The deck side laps are fastened at 24" o.c. (three evenly spaced fasteners between supports) using Tek's 1 or Traxx/1 fasteners between supports. Or structural concrete deck.

Thermal Barrier: (Optional) (*With steel deck only*) Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board mechanically attached with OMG Heavy-Duty fasteners and OMG 3" Galvalume Steel Plates at 1.6 ft².

Vapor Barrier: (Optional) Elastophene SP 2.2, Elastophene SP 3.0, Colphene SP 2.2, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied over substrate primed with Elastocol 500, Elastocol Stick or ASTM D41 primer.

LWIC Deck: A 1/8" slurry coat of, min. 350 psi, 43.5 pcf wet cast density, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture with min. 1" thick Holy Board and a minimum 2" thick top coat, min. 350 psi, 43.5 pcf wet cast density. After setting to support foot traffic, Celcore PVA Curing Compound is applied at a rate of 0.33 gal/square.

Base Sheet: Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene Sanded, Colphene Sanded, Sopra G, Modified Sopra G, Sopra IV, Sopra VI, Soprafix, Soprafix Base 622, Soprabase*, Soprabase S* mechanically attached with FM-90 or SOPREMA 1.7 in. Base Sheet Fastener spaced 9-inch o.c. at the 4-inch laps and 12-inch o.c. in two equally spaced, staggered center rows.

*Requires asphalt applied or cold applied ply sheets.

Ply Sheet: (Optional) Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250* or Sopralene 250 SP, torch-applied with minimum 3" wide lap.

Or

Elastophene Sanded, Colphene Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Colphene 180 PS, Sopralene 180 PS 2.2*, Sopralene 180 PS*, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Sopra IV or Sopra VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

*Requires torch-applied cap membrane.

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| Membrane: | <p>Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Soprastar Flam, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Soprafix Cap FR-651, torch-applied.</p> <p>Or</p> <p>Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Soprastar Sanded, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR or Colphene 250 FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced ply membrane.</p> |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | <p>-60 psf. (torch applied membranes) (See General Limitation #7.)</p> <p>-52.5 psf. (all other membrane applications) (See General Limitation #7.)</p> |

Membrane Type: SBS

Deck Type 4: Lightweight Decks, Non-Insulated

Deck Description: Celcore MF Cellular Concrete, min. 300 psi, min.

System Type E(7): Base sheet mechanically attached directly to substrate. Membranes adhered to base sheet for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Structural Deck: 18-22 ga. Grade 33, Type B steel deck secured to the structural supports 6" o.c. with 1/2" welds and washers spaced maximum 5' o.c. The deck side laps are fastened at 24" o.c. (three evenly spaced fasteners between supports) using Traxx/1 screws between supports or min. 2,500 structural concrete.

LWIC Deck: Celcore MF Cellular Concrete, min. 300 psi, min. wet cast density of 42 lbs./ft³, with Celcore HS Rheology Modifying Admixture applied in a min. 1/8" slurry. Minimum 1" thick Holey Boards are then immediately placed into the wet concrete and allowed to set overnight. The following day, a min. 2" thick topping layer of Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture is placed atop the EPS. After an overnight set, Celcore PVA Curing Compound is spray applied to the lightweight concrete at a rate of 300 ft²/gal.

Base Sheet: Sopra G, Modified Sopra G, Sopra IV, Sopra VI, Soprabase*, Soprabase S* mechanically attached with FM-90, SOPREMA 1.7 in. Base Sheet Fastener or OMG CR Base Ply Fasteners (1.7") or Soprabase, Soprabase S mechanically attached with FM-90 or SOPREMA 1.7 in. Base Sheet Fastener spaced 7-inch o.c. at the 3-inch laps and 7-inch o.c. in two equally spaced, staggered center rows.

*Requires asphalt applied or cold applied ply sheets.

Ply Sheet: Elastophene Flam*, Elastophene Flam 2.2*, Elastophene Flam HS*, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180*, Colphene Flam 180*, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250* or Sopralene 250 SP, torch-applied with minimum 3" wide lap.

Or

Elastophene Sanded, Colphene Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Elastophene PS*, Elastophene PS 3.0*, Elastophene 180 PS*, Colphene 180 PS, Sopralene 180 PS 2.2*, Sopralene 180 PS*, Sopralene 180 Sanded, Sopralene 250 Sanded or one or more plies of Sopra IV or Sopra VI ply sheets adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. to sand surfaced base membrane.

*Requires torch-applied cap membrane.

Membrane: Elastophene Flam GR, Elastophene Flam FR GR, Elastophene Flam LS FR GR, Elastophene Flam FR+ GR, Soprapstar Flam, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, Soprafix Cap FR-651, torch-applied.

Or

**Membrane:
(Continued)**

Elastophene GR, Elastophene FR GR, Elastophene LS FR GR, Soprarstar Sanded, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR or Colphene 250 FR GR adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in FM Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprarstar Adhesive at 1.5 – 2.0 gallons/square to sand surfaced ply membrane.

Integrity Test:

Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.

Inspection:

Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

**Surfacing:
(Optional)**

Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

**Maximum Design
Pressure:**

-75 psf. (torch applied membranes) (See General Limitation #7.)
-52.5 psf. (all other membrane applications) (See General Limitation #7.)

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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Decks, Non-Insulated |
| Deck Description: | Celcore MF Cellular Concrete, min. 300 psi. |
| System Type E(8): | Base sheet mechanically attached to the primed substrate. Membranes adhered to base sheet for Terrace/Plaza Decks, Planters or Traffic Areas |
| All General and System Limitations apply. | |
| Structural Deck: | Min. 22 ga. Grade 33, painted or galvanized steel deck attached 6" o.c. with 3/8 in. weld washers to steel supports spaced max 6 ft o.c. Deck side laps are attached with Traxx/1 screws spaced 24" o.c or min. 2,500 structural concrete |
| Thermal Barrier: (Optional) | <i>(With steel deck only)</i> Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board mechanically fastened with OMG Heavy Duty fasteners, OMG 3" Galvalume Steel Plates, Dekfast Galvalume Steel Hex plates, Dekfast Galvalume Steel 3" Round plates, Dekfast 14 fasteners, Trufast 3" Metal Insulation Plates and Trufast #14 Stainless Steel HD Fasteners, or SOPREMA 3" Round Insulation Plate and SOPREMA #14 Fasteners at a rate of 1 per 1.6 ft ² . |
| Vapor Barrier: (Optional)_ | Elastophene SP 2.2, Elastophene SP 3.0, Colphene SP 2.2, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied over substrate primed with Elastocol 500, Elastocol Stick or ASTM D41 primer. |
| LWC Deck: | A 1/8" slurry coat of, min. 300 psi, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture with min. 1" thick Holy Board and a minimum 2" thick top coat. After setting to support foot traffic, Celcore PVA Curing Compound is applied at a rate of 0.33 gal/square. |
| Base Sheet: | One ply of Sopra G, Modified Sopra G or Sopra VI mechanically attached with FM-90, SOPREMA 1.7 in. Base Sheet Fastener or OMG CR Base Ply Fasteners (1.7") or Soprabase, Soprabase S mechanically attached with FM-90 or SOPREMA 1.7 in. Base Sheet Fastener spaced 7-inch o.c. at the 3-inch laps and 7-inch o.c. in two equally spaced, staggered center rows. |
| Ply Sheet: (Optional) | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene Flam 250, torch-applied. |
| Membrane: | Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprapstar Flam, Soprafix Cap FR-651, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |

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| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -75 psf. (See General Limitation #7.) |

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(1): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Concrete deck shall be primed with Elastocol Stick primer applied at a rate of 1 gal/sq. |
| Base Sheet: | Sopralene Stick, Colphene Stick or Sopralene Flam Stick*, self-adhered. *Requires heat welded cap sheet. |
| Membrane: | Soprastar Stick, Elastophene Stick FR GR, self-adhered to sand surfaced base or ply membrane primed with Elastocol Stick. Or Elastophene Flam LS FR GR, Soprastar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, torch-applied. Or Elastophene GR, Elastophene LS FR GR, Elastophene FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR or Soprastar Sanded applied in hot asphalt at 25 lbs/square or adhered with FM Adhesive, COLPLY Adhesive, FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive at 1.5 gal/square. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -67.5 psf. (See General Limitation #9.) |

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(2): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry. |
| Base Sheet: | Sopra G, Modified Sopra G, Soprabase, Soprabase S, Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with FM Adhesive or COLPLY Adhesive applied at 1.5 gal/square. |
| Membrane: | Elastophene GR, Elastophene LS FR GR, Elastophene FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR or Soprastar Sanded adhered with FM Adhesive or COLPLY Adhesive applied at 1.5 gal/square. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -82.5 psf. (See General Limitation #9.) |

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(3): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Elastocol 500 or ASTM D 41 primer applied to deck at a rate of 100-150 ft ² /gal. |
| Base Sheet: | Colvent Flam TG or Colvent Flam 180 TG, torch-applied. |
| Ply Sheet: (Optional) | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch-applied. |
| Membrane: | Elastophene Flam LS FR GR, Soprastar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR or Sopralene Flam 250 FR+ GR, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: | Wausau Terra-System One with Lok-Down adhered to the top surface of the waterproofing system in Sopramastic SP-1 at 0.30 – 0.35 gal/ft ² . (0.1 gal/pedestal base). Followed by the 2' x 2' Terra-Pavers and the Lok-Down securement tabs and screws. NOTE: All plastic surfaces shall be primed with Chem Link TPO Primer prior to application of Sopramastic SP-1 adhesive. |
| Maximum Design Pressure: | -90 psf. (See General Limitation #9.) |

Membrane Type: SBS

Deck Type 4: Lightweight Concrete Decks, Non-Insulated

Deck Description: Elastizell Lightweight Concrete, min. 300 psi.

System Type F(4): Membranes applied directly to substrate for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Structural Deck: Min. 22 ga., Type B, Grade 33 vented Steel deck attached 6" o.c. with Traxx/5 screws to steel support spaced max 6 ft o.c. Deck side laps are attached with Traxx/1 screws spaced 12" o.c.

LWIC Deck: Elastizell Range II with Zell-Crete Fibers, min. 300 psi, consisting of a 1/8" slurry coat, minimum 1" thick Holey Board and a minimum 2" thick top coat.

Base Sheet: Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene HD, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with Millennium Hurricane Force Membrane Adhesive with 0.5 – 1.0-inch wide ribbons spaced 12-inch o.c.

Primer: Elastocol 500, Elastocol Stick or ASTM D 41 primer applied at a rate of 1 gal./sq.

Membrane: Elastophene Stick FR GR or Soprastar Stick*, self-adhered.

*Base layer shall be primed with Elastocol Stick prior to applying cap sheet.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

**Surfacing:
(Optional)** Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

**Maximum Design
Pressure:** -105 psf. (See General Limitation #9.)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete Decks, Non-Insulated

Deck Description: Min. 300 psi, min 2-inch thick Elastizell Range II with Zell-Crete Fibers.

System Type F(5): Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Structural Deck: 2,500 psi structural concrete or min. 22 ga., Type B, Grade 33 vented steel deck welded to supports spaced max. 6' o.c. with Traxx/5 fasteners spaced 6" o.c. Deck side laps are fastened with Traxx/1 fasteners spaced 12" o.c.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

Temp Roof: (Optional) *(Only for Concrete Deck)* Elastophene Flam GR or Elastophene Flam LS FR GR torch-applied.

Primer: (Optional) Elastocol 500 or Elastocol Stick applied at a rate of 1 gal./sq.

Base Sheet: Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene HD, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with Millennium Hurricane Force Membrane Adhesive with 0.5 – 1.0-inch wide ribbons spaced 12-inch o.c.

Primer: (Optional) *(Required with self-adhered top sheet)* Elastocol 500 or Elastocol Stick applied at a rate of 1 gal./sq.

Membrane: Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprapstar Flam or Soprafix Cap FR-651, fully torch-applied.
Or
Elastophene Stick FR GR or Soprapstar Stick, self-adhered.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

Surfacing: (Optional) Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

Maximum Design Pressure: -105 psf. with Steel Decking (See General Limitation #9.)
-240 psf. with Concrete Decking (See General Limitation #9)

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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Concrete Decks, Non-Insulated |
| Deck Description: | Celcore MF Cellular Lightweight Concrete, min. 300 psi. |
| System Type F(6): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | 2,500 psi structural concrete. |
| Primer: (Optional) | Deck primed with ASTM D41 primer. |
| Temp Roof: (Optional) | <p>(<i>Smooth surface sheets</i>) One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, heat welded</p> <p>Or</p> <p>(<i>Granule surface sheets</i>) One layer of Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, heat welded.</p> |
| LWIC: | Min. 300 psi Celcore MF Cellular Lightweight Concrete deck treated with Celcore PVA Curing Compound |
| Primer: | Elastocol 500, Elastocol Stick primer at an application rate of 1 gal/sq. |
| Base Sheet: | Colvent Flam TG or Colvent Flam 180 TG, torch-applied. |
| Ply Sheet: (Optional) | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch-applied. |
| Membrane: | Elastophene Flam LS FR GR, Soprastar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR or Sopralene Flam 250 FR+ GR, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |

Surfacing:

Wausau Lok-Down Paver in Lok-Down over Terra-Stand: The 5-inch round Terra-Stand base is bonded to the top surface of the waterproofing system in Millennium Hurricane Force Membrane Adhesive at 150 ml per base, followed by Terra-Stand core and top components. The Lok-Down base is then bonded to the top surface of the Terra-Stand in Millennium Hurricane Force Membrane Adhesive at 120 ml per base. Followed by the 2' x 2' Terra-Pavers and the Lok-Down securement tabs and screws.

**Maximum Design
Pressure:**

-122.5 psf. (See General Limitation #9.)



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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Concrete Decks, Non-Insulated |
| Deck Description: | Celcore MF Cellular Lightweight Concrete, min. 300 psi |
| System Type F(7): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | 2,500 psi structural concrete. |
| Primer: (Optional) | Deck shall be primed with ASTM D41 primer. |
| Temp Roof: (Optional) | <p>(<i>Smooth surface sheets</i>) One layer of Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, heat welded</p> <p>Or</p> <p>(<i>Granule surface sheets</i>) One layer of Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, heat welded.</p> |
| LWC Deck: | Min. 300 psi Celcore MF Cellular Lightweight Concrete deck treated with Celcore PVA Curing Compound. |
| Primer: | Deck shall be primed with Elastocol 500 or Elastocol Stick primer at an application rate of 1 gal/sq. |
| Base Sheet: | Colvent Flam TG or Colvent Flam 180 TG, torch-applied. |
| Ply Sheet: (Optional) | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch- applied. |
| Membrane: | Elastophene Flam LS FR GR, SopraStar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR or Sopralene Flam 250 FR+ GR, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: | Wausau Lok-Down Paver in Lok-Down: The Lok-Down base is bonded directly to the top surface of the waterproofing system in Millennium Hurricane Force Membrane Adhesive at 150 ml per base. Followed by the 2' x 2' Terra-Pavers and the Lok-Down securement tabs and screws. |
| Maximum Design Pressure: | -135 psf. (if using granule surfaced vapor barrier) (See General Limitation #9.) -142.5 psf. (all other applications) (See General Limitation #9.) |

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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Concrete Decks, Non-Insulated |
| Deck Description: | Min. 300 psi, min 2-inch thick Elastizell Range II. |
| System Type F(8): | Membranes applied directly to substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | 2,500 psi structural concrete. |
| Temp Roof: (Optional) | Elastophene Flam GR or Elastophene Flam LS FR GR torch-applied to deck primed with Elastocol 500 or Elastocol Stick primer applied at a rate of 1 gal/sq. |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Elastocol 500, Elastocol Stick or ASTM D 41 primer applied at a rate of 1 gal./sq. |
| Base Sheet: | Colvent TG, Colvent Flam TG*, Colvent 180 TG, Colvent Flam 180 TG* torch-applied. *requires torch applied top sheet. |
| Ply Sheet: (Optional) | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch- applied. |
| Membrane: | Elastophene GR, Elastophene LS FR GR, Elastophene FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR or Soprastar Sanded adhered with hot asphalt at 20-40 lbs./square. Or Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprastar Flam, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -145 psf. (See General Limitation #9.) |

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(9): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry. |
| Base Sheet: (Optional) | Sopra G, Modified Sopra G, Soprabase, Soprabase S, Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive applied at 1.5 gal/square. |
| Ply Sheet: | Sopra G, Modified Sopra G, Soprabase, Soprabase S, Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive applied at 1.5 gal/square. |
| Membrane: | Elastophene GR, Elastophene LS FR GR, Elastophene FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR or Soprastar Sanded adhered with FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive applied at 1.5 gal/square. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -187.5 psf. (See General Limitation #9.) |

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(10): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry. |
| Base Sheet: (Optional) | Sopra G, Modified Sopra G, Soprabase, Soprabase S, Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive applied at 1.5 gal/square. |
| Ply Sheet: | Sopra G, Modified Sopra G, Soprabase, Soprabase S, Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive applied at 1.5 gal/square. |
| Membrane: | Elastophene GR, Elastophene LS FR GR, Elastophene FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR or Soprastar Sanded adhered with FM Adhesive (VOC), COLPLY Modified Adhesive or Soprastar Adhesive applied at 1.5 gal/square. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: | Exterior grade ceramic plaza deck walking tiles (Minimum size of 12" x 12" and minimum ½" thickness) tiles shall be embedded into mud-set Portland Cement applied with a ¼" minimum square notched trowel. Tiles should then be carefully embedded in the mortar bed and tapped in place to insure full solid bearing. Tile shall be installed in accordance with applicable Building Code. |
| Maximum Design Pressure: | -187.5 psf. (See General Limitation #9.) |

Membrane Type: SBS
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: Terrace/Plaza Deck, Planter, Traffic
System Type F(11): Membranes applied directly to primed substrate.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

Primer: Elastocol 500 or ASTM D41 primer at an application rate of 100-150 ft²/gallon.

Base Sheet: One layer of Sopralene Stick, Colphene Stick, Colvent SA, Self-adhered

Primer: Elastocol 500, Elastocol Stick applied at a rate of 1 gal./sq., to top surface of any
(Optional) base or ply sheet prior to application of next layer

Ply Sheet: One or more layers of Elastophene Sanded, Colphene Sanded, Elastophene
(Optional) Sanded 3.0, Elastophene PS, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded, applied in asphalt at a rate of 25 lbs./sq. to sand surface base membrane

Membrane: One layer of Elastophene LS FR GR, Elastophene FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR, applied in hot asphalt at a rate of 25 lbs./sq.

Integrity Test: Required, and shall be performed by an approved lab in accordance with ASTM D5957. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

Surfacing: Apply any coating listed in Table 4 above, or any Miami-Dade approved coating
(Optional) system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

Maximum Design Pressure: -240 psf. (See General Limitation #9.)

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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Concrete Decks, Non-Insulated |
| Deck Description: | Celcore MF Cellular Concrete, min. 300 psi. |
| System Type F(12): | Membranes applied directly to substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | 2,500 psi structural concrete. |
| Vapor Retarder: (Optional) | Elastophene SP 2.2, Elastophene SP 3.0, Colphene SP 2.2, Colphene SP 3.0, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene 250 SP, torch-applied over substrate primed with ASTM D41 primer. |
| LWC Deck: | Min. 300 psi, min 2-inch thick Celcore MF Cellular Concrete |
| Primer: | Elastocol 500, Elastocol Stick or ASTM D 41 primer applied at a rate of 1 gal./sq. |
| Base Sheet: | Colvent TG, Colvent Flam TG*, Colvent 180 TG or Colvent Flam 180 TG* torch-applied. *requires torch applied top sheet. |
| Ply Sheet: (Optional) | Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene HD, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with hot asphalt at 20-40 lbs/square. Or Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene Flam 250, torch-applied. Or Sopralene Stick, Colphene Stick or Sopralene Flam Stick, Self-Adhered. |
| Membrane: | Elastophene GR, Elastophene LS FR GR, Elastophene FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR or Soprapstar Sanded adhered with hot asphalt at 20-40 lbs/square. Or Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprapstar Flam, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -242.5 psf. (See General Limitation #9.) |

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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Concrete Decks, Non-Insulated |
| Deck Description: | Celcore MF Cellular Concrete, min. 300 psi. |
| System Type F(13): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | 2,500 psi structural concrete. |
| LWIC Deck: | A 1/8" slurry coat of, min. 300 psi, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture with min. 1" thick Holy Board and a minimum 2" thick top coat. After allowing to cure for 24-hour period, Celcore PVA Curing Compound is applied at a rate of 0.33 gal/square. |
| Primer: | ASTM D 41 primer applied at a rate of 1 gal./sq., to top surface of the LWC deck prior to application of next layer. |
| Base/Ply Sheet: | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene Flam 250, torch-applied. |
| Membrane: | Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprapstar Flam, Soprapfix Cap FR-651, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -255 psf. (See General Limitation #9.) |

Membrane Type: SBS

Deck Type 4: Lightweight Concrete Decks, Non-Insulated

Deck Description: Celcore MF Cellular Concrete, min. 300 psi.

System Type F(14): Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Structural Deck: 2,500 psi structural concrete

**Temp Roof:
(Optional)** Elastophene Flam GR, Elastophene Flam LS FR GR, torch-applied.

LWC Deck: Min. 300 psi, min 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture. After setting to support foot traffic, Celcore PVA Curing Compound is applied.

**Primer:
(Optional)** Elastocol 500 or Elastocol Stick applied at a rate of 1 gal./sq.

Base Sheet: Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene HD, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with Millennium Hurricane Force Membrane Adhesive with 0.5-1.0-inch wide ribbons spaced 12-inch o.c.

**Primer:
(Optional)** (Required with self-adhered top sheet) Elastocol 500 or Elastocol Stick applied at a rate of 1 gal./sq.

Membrane: Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprastar Flam or Soprafix Cap FR-651, torch-applied.
Or
Elastophene Stick FR GR or Soprastar Stick, self-adhered.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

**Surfacing:
(Optional)** Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

Maximum Design Pressure: -255.0 psf. For torch-applied membranes (See General Limitation #9.)
-262.5 psf. For self-adhered membranes (See General Limitation #9.)

Membrane Type: SBS

Deck Type 4: Lightweight Concrete Decks, Non-Insulated

Deck Description: Elastizell Lightweight Concrete, min. 300 psi.

System Type F(15): Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Structural Deck: 2,500 psi structural concrete.

Temp Roof (Optional): Elastophene Flam GR, Elastophene Flam LS FR GR, torch-applied to deck primed with Elastocol 500 or Elastocol Stick primer applied at a rate of 1 gal./sq.

LWC Deck: Min. 300 psi, min 2-inch thick Elastizell Range II.

Primer: (Optional) Elastocol 500, Elastocol Stick or ASTM D 41 primer applied at a rate of 1 gal./sq., to top surface of the LWC deck prior to application of next layer.

Base Sheet: Elastophene HS, Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene HD, Elastophene PS, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 PS 2.2, Elastophene 180 PS, Colphene 180 PS or Sopralene 250 Sanded adhered with Millennium Hurricane Force Membrane Adhesive with 0.5-1.0-inch wide ribbons spaced 12-inch o.c.

Primer: Elastocol 500 or Elastocol Stick applied at a rate of 1 gal./sq.

Membrane: Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprapstar Flam or Soprapfix Cap FR-651, fully torch-applied.
Or
Elastophene Stick FR GR or Soprapstar Stick, self-adhered.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

Surfacing: (Optional) Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

Maximum Design Pressure: -255.0 psf. For torch-applied membranes (See General Limitation #9.)
-302.5 psf. For self-adhered membranes (See General Limitation #9.)

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| Membrane Type: | SBS |
| Deck Type 4: | Lightweight Concrete Decks, Non-Insulated |
| Deck Description: | Celcore MF Cellular Concrete, min. 300 psi. |
| System Type F(16): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Structural Deck: | 2,500 psi structural concrete. |
| LWC Deck: | Min. 300 psi, min 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture. After setting to support foot traffic, Celcore PVA Curing Compound is applied. |
| Primer: | Elastocol 500, Elastocol Stick or ASTM D 41 primer applied at a rate of 1 gal./sq., to top surface of the LWC deck prior to application of next layer. |
| Base Sheet: | Colvent Flam TG or Colvent Flam 180 TG torch-applied. |
| Ply Sheet: | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250 or Sopralene 250 SP, torch-applied. |
| Membrane: | Elastophene Flam LS FR GR, SopraStar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR or Sopralene Flam 250 FR+ GR, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: (Optional) | Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications. |
| Maximum Design Pressure: | -262.5 psf. (See General Limitation #9.) |

Membrane Type: SBS
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: Terrace/Plaza Deck, Planter, Traffic
System Type F(17): Membranes applied directly to primed substrate.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

Primer: Elastocol 500 or ASTM D41 primer at an application rate of 100-150 ft²/gallon.

Base Sheet: One layer of Colvent TG is heat welded

Primer: (Optional) Elastocol 500, Elastocol Stick applied at a rate of 1 gal./sq., to top surface of any base or ply sheet prior to application of next layer

Ply Sheet: (Optional) One or more layers of Elastophene Sanded, Colphene Sanded, Elastophene Sanded 3.0, Elastophene 180 Sanded, Colphene 180 Sanded, Sopralene 180 Sanded 2.2, Sopralene 180 Sanded, Sopralene 250 Sanded, applied in asphalt at a rate of 25 lbs./sq. to sand surfaced base membrane.

Membrane: One layer of Elastophene LS FR GR, Elastophene FR GR, Sopralene 180 FR GR, Colphene 180 FR GR, Sopralene 250 FR GR, Colphene 250 FR GR applied in asphalt at a rate of 25 lbs./sq. to sand surfaced base or ply membrane.

Integrity Test: Required, and shall be performed by an approved lab in accordance with ASTM D5957. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

Surfacing: (Optional) Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

Maximum Design Pressure: -262.5 psf. (See General Limitation #9.)

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(18): | Membranes applied directly to primed substrate. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Elastocol 500, Elastocol Stick or ASTM D41 primer at an application rate of 100-150 ft ² /gallon. |
| Base Sheet: | One layer of Sopralene Flam Stick*, Sopralene Stick, Colphene Stick, Colvent SA, Self-adhered *Requires heat welded ply or cap membrane |
| Primer: (Optional) | Elastocol 500, Elastocol Stick applied at a rate of 1 gal./sq., to top surface of any base or ply sheet prior to application of next layer |
| Ply Sheet: (Optional) | One or more layers of Elastophene Flam*, Elastophene Flam 2.2*, Sopralene Flam 180*, Colphene Flam 180*, Sopralene Flam 250*, heat welded *Requires heat welded cap membrane. |
| Membrane: | One layer of Elastophene Flam LS FR GR, Soprastar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, heat welded. |
| Integrity Test: | Required, and shall be performed by an approved lab in accordance with ASTM D5957. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Drain Board: (Optional) | Sopradrain ECO-Vent WR or Sopradrain ECO-2 WR adhered to the top membrane layer with Duotack adhesive applied in 6" spots in a 12 x 12-inch grid. |
| Surfacing: (Optional) | Min. 12" x 12" x 1" thick concrete pavers installed in ANSI A118.1 mud-set mortar, ¼" minimum notched trowel per ANSI A108.5. |
| Maximum Design Pressure: | -252.5 psf With Drain Board and Concrete Pavers (See General Limitation #9.) -270 psf. Without Drain Board and Concrete Pavers (See General Limitation #9.) |

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(19): | Membranes applied directly to primed substrate. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Elastocol 500, Elastocol Stick or ASTM D41 primer at an application rate of 100-150 ft ² /gallon. |
| Base Sheet: | One layer of Colvent TG, Colvent Flam TG*, Colvent 180 TG or Colvent Flam 180 TG*, heat welded. *requires torch applied top sheet |
| Primer: (Optional) | Elastocol 500, Elastocol Stick applied at a rate of 1 gal./sq., to top surface of any base or ply sheet prior to application of next layer |
| Ply Sheet: (Optional) | One or more layers of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250, Sopralene 250 SP, heat welded |
| Membrane: | One layer Elastophene Flam LS FR GR, Soprastar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, heat welded |
| Integrity Test: | Required, and shall be performed by an approved lab in accordance with ASTM D5957. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Drain Board: (Optional) | Sopradrain ECO-Vent WR or Sopradrain ECO-2 WR adhered to the top membrane layer with Duotack adhesive applied in 6" spots in a 12 x 12-inch grid. |
| Surfacing: (Optional) | Min. 12" x 12" x 1" thick concrete pavers installed in ANSI A118.1 mud-set mortar, 1/4" minimum notched trowel per ANSI A108.5. |
| Maximum Design Pressure: | -252.5 psf. With Drain Board and Concrete Pavers (See General Limitation #9.) -292.5 psf. Without Drain Board and Pavers (See General Limitation #9.) |

Membrane Type: SBS

Deck Type 4: Lightweight Concrete Decks, Non-Insulated

Deck Description: Celcore MF Cellular Concrete, min. 300 psi.

System Type F(20): Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Structural Deck: 2,500 psi structural concrete.

Primer: Concrete shall be primed with ASTM D 41 primer applied at a rate of 1 gal./sq.

Vapor Barrier: Elastophene Sanded, Colphene Sanded, Sopralene 180 Sanded, Elastophene 180 Sanded, Colphene 180 Sanded or Sopralene 250 Sanded adhered with FM Adhesive or COLPLY Adhesive at 1.5 gal/square
OR
Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene 180 SP 3.0 or Sopralene 180 SP 3.5 or Colphene 180 SP 3.5, torch-applied.

LWIC Deck: A 1/8" slurry coat of, min. 300 psi, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture with min. 1" thick Holy Board and a minimum 2" thick top coat. After allowing to cure for 24-hour period, Celcore PVA Curing Compound is applied at a rate of 0.33 gal/square.

Primer: Primed with ASTM D 41 primer applied at a rate of 1 gal./sq., to top surface of the LWC deck prior to application of next layer.

Base Sheet: Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene Flam 250, torch-applied.

Membrane: Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprapstar Flam, Soprafix Cap FR-651, torch-applied.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

**Surfacing:
(Optional)** Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

Maximum Design Pressure: -262.5 psf. with adhesive applied vapor barrier (See General Limitation #9.)
-360 psf. with torch applied vapor barrier (See General Limitation #9.)

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(21): | Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Concrete deck shall be primed with ASTM D 41 primer and allowed to dry. |
| Base Sheet: | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene Flam 250, torch-applied. |
| Ply Sheet: (Optional) | Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene SP 3.0, Colphene SP 3.0, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5 or Sopralene Flam 250, torch-applied. |
| Membrane: | Elastophene Flam GR, Elastophene Flam LS FR GR, Elastophene Flam FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 GR 3.5, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR GR 3.5, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Soprapstar Flam, Soprapfix Cap FR-651, torch-applied. |
| Integrity Test: | Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Drain Board: (Optional) | Sopradrain ECO-Vent WR or Sopradrain ECO-2 WR adhered to the top membrane layer with Duotack adhesive applied in 6" spots in a 12 x 12-inch grid. |
| Surfacing: (Optional) | Min. 12" x 12" x 1" thick concrete pavers installed in ANSI A118.1 mud-set mortar, 1/4" minimum notched trowel per ANSI A108.5. |
| Maximum Design Pressure: | -252.5 psf. with Drain Board and Pavers (See General Limitation #9.) -367.5 psf. without Drain Board and Pavers (See General Limitation #9.) |

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| Membrane Type: | SBS |
| Deck Type 3: | Concrete Decks, Non-Insulated |
| Deck Description: | Terrace/Plaza Deck, Planter, Traffic |
| System Type F(22): | Membranes applied directly to primed substrate. |
| All General and System Limitations apply. | |
| Substrate Preparation: | All surfaces must be dry, smooth, free of depressions, voids and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. |
| Primer: | Elastocol 500, Elastocol Stick or ASTM D41 primer at an application rate of 100-150 ft ² /gallon. |
| Base Sheet: | One layer of Colvent TG, Colvent Flam TG*, Colvent 180 TG or Colvent Flam 180 TG*, heat welded. *requires torch applied top sheet |
| Primer: (Optional) | Elastocol 500, Elastocol Stick applied at a rate of 1 gal./sq., to top surface of any base or ply sheet prior to application of next layer |
| Ply Sheet: (Optional) | One or more layers of Elastophene Flam, Elastophene Flam 2.2, Elastophene SP 2.2, Colphene SP 2.2, Elastophene 180 SP, Sopralene Flam 180, Colphene Flam 180, Sopralene 180 SP 3.0, Sopralene 180 SP 3.5, Colphene 180 SP 3.5, Sopralene Flam 250, Sopralene 250 SP, heat welded |
| Membrane: | One layer Elastophene Flam LS FR GR, Soprastar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR, Sopralene Flam 250 FR+ GR, heat welded |
| Integrity Test: | Required, and shall be performed by an approved lab in accordance with ASTM D5957. Water may be maintained for a period longer than 24 hours if required. |
| Inspection: | Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected. |
| Surfacing: | Exterior grade ceramic plaza deck walking tiles (Minimum size of 12" x 12" and minimum ½" thickness) tiles shall be embedded into mud-set Portland Cement applied with a ¼" minimum square notched trowel. Tiles should then be carefully embedded in the mortar bed and tapped in place to insure full solid bearing. Tile shall be installed in accordance with applicable Building Code. |
| Maximum Design Pressure: | -292.5 psf. (See General Limitation #9.) |

Membrane Type: SBS
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: Terrace/Plaza Deck
System Type F(23): Membranes applied directly to substrate with Tile surfacing.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids, and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. Substrate shall be smooth, free of voids, spalled areas, laitance, honeycombs, and sharp protrusions.

Primer: Elastocol 500, Elastocol Stick or ASTM D 41 primer applied to deck at a rate of 100-150 ft²/gal.

Base Sheet: One or more plies of Elastophene Flam or Sopralene Flam 180, Colphene Flam 180, Sopralene Flam 250, heat welded according to manufacturer's application instruction.

Membrane: Elastophene Flam LS FR GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam Antirock or Soprastar Flam heat welded according to manufacturer's application instruction.

Integrity Test: Required, and shall be performed by an approved lab in accordance with ASTM D5957. Water maybe maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards and traffic surfacing. All defects observed shall be corrected.

Surfacing: Exterior grade ceramic plaza deck walking tiles (Minimum size of 12" x 12" and minimum ½" thickness) tiles shall be embedded into mud-set Portland Cement applied with a ¼" minimum square notched trowel. Tiles should then be carefully embedded in the mortar bed and tapped in place to insure full solid bearing. Tile shall be installed in accordance with applicable Building Code.

Maximum Design Pressure: -457.5 psf. (See General Limitation #9)

Membrane Type: SBS

Deck Type 3: Concrete Decks, Non-Insulated

Deck Description: Terrace/Plaza Deck, Planter, Traffic

System Type F(24): Membranes adhered to primed substrate for Terrace/Plaza Decks, Planters or Traffic Areas.

All General and System Limitations apply.

Existing Roof: Fully adhered, granule surfaced, SBS modified bitumen.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids, and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants.

Primer: Elastocol 500 or ASTM D 41 primer applied to deck at a rate of 100-150 ft²/gal.

Membrane: Elastophene Flam LS FR GR, Soprastar Flam, Elastophene Flam FR GR, Elastophene Flam FR+ GR, Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180 FR GR, Colphene Flam 180 FR GR, Sopralene Flam 180 FR+ GR, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR or Sopralene Flam 250 FR+ GR, torch-applied.

Integrity Test: Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards or traffic surfacing. All defects observed shall be corrected.

Surfacing: (Optional) Apply any coating listed in Table 4 above, or any Miami-Dade approved coating system. Refer to Underwriters Laboratories or Intertek Testing Services listings for applicable fire classifications.

Maximum Design Pressure: -572.5 psf. (See General Limitation #9.)

Membrane Type: SBS
Deck Type 3: Concrete Decks, Non-Insulated
Deck Description: Min. 2500 psi, dual slab construction (roof plaza and parking decks)
System Type F(25): Membranes applied directly to primed substrate with concrete surfacing.

All General and System Limitations apply.

Substrate Preparation: All surfaces must be dry, smooth, free of depressions, voids, and protrusions, and clean and free of any non-compatible curing compounds, foam release agents and other surface contaminants. Substrate shall be smooth, free of voids, spalled areas, laitance, honeycombs, and sharp protrusions.

Primer: Elastocol 500, Elastocol Stick or ASTM D 41 primer applied to deck at a rate of 100-150 ft²/gal.

Base Sheet: One or more plies of Sopralene Flam 180 or Sopralene Flam 250, heat welded according to manufacturer's application instruction.

Membrane: Sopralene Flam 180 GR, Colphene Flam 180 GR, Sopralene Flam 180, Sopralene Flam 250 FR GR, Colphene Flam 250 FR GR or Sopralene Flam Antirock, heat welded according to manufacturer's application instruction.

Integrity Test: Required, and shall be performed by an approved lab in accordance with ASTM D5957. Water may be maintained for a period longer than 24 hours if required.

Inspection: Contractor and a representative of the membrane manufacturer shall inspect the waterproofing assembly and notify the contractor of any defects. Inspection must take place prior to installation of any overlay insulation, protection pads, drainage boards and traffic surfacing. All defects observed shall be corrected.

Protection Board and/or Drainage Layer: (Optional) Install drainage board over top ply membrane

Surfacing: Structural Concrete Slab, minimum 2500 psi, in compliance with applicable Building Code.

Maximum Design Pressure: N/A
(Topping concrete slab shall comply with applicable Building Code requirement.)

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. All work shall be performed by a Contractor licensed to do roofing/waterproofing and be a Manufacturer Trained 'Qualified Applicator' approved by SOPREMA. SOPREMA shall supply a list of approved applicators to the authority having jurisdiction.
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. A non-skid surfacing is required for all pedestrian areas, plaza decks or balconies.
11. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.
12. Required integrity flood testing shall be provided to the Building Official for review at time of final inspection.

END OF THIS ACCEPTANCE



NOA No.: 16-0229.05
Expiration Date: 09/18/18
Approval Date: 07/14/16
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